

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A quantitative measurement method which uses a structure formed with a material having a three dimensional mesh structure, and which contains a reagent which reacts with a target substance in the mesh, to perform quantitative measurements of the target substance, comprising the steps of:

(a) a contacting step in which bringing a test specimen containing the a target substance is brought into contact with the structure a material having a three dimensional mesh structure which contains a reagent that reacts with the target substance;

(b) a detecting step which detects detecting, at a contact interface between the test specimen and the reagent, a substance whose quantity increases or decreases within the mesh structure by means of the reaction between the target substance and the reagent; and

(c) a quantitative measurement step which performs performing quantitative measurement of the target substance in response to the results of the detecting step (b);

wherein the mesh structure allows at least the target substance to pass therethrough.

2. (Currently Amended) The quantitative measurement method according to claim 1, wherein the mesh structure has a size which prevents a is sized to prevent components of the test specimen which is are larger than the target substance from passing therethrough.

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3. (Original) The quantitative measurement method according to claim 1, wherein the test specimen is whole blood, and the target substance is the blood plasma component thereof.

4. (Currently Amended) The quantitative measurement method according to claim 1, wherein ~~in the detection step (b)~~, the concentration of the quantitatively increasing or decreasing substance is measured at a predetermined distance from the contact interface ~~between the test specimen and the structure~~, after a predetermined period of time has elapsed from the time at which the test specimen came into contact with the mesh structure in ~~the contacting step (a)~~.

5. (Currently Amended) The quantitative measurement method according to claim 1, wherein ~~in the detection step (b)~~, the time until a predetermined concentration of the quantitatively increasing or decreasing substance is detected at a predetermined distance from the contact interface ~~between the test specimen and the structure~~ will be measured based upon the time at which the test specimen first came into contact with the mesh structure in ~~the contacting step (a)~~.

6. (Currently Amended) The quantitative measurement method according to claim 1, wherein ~~in the detection step (b)~~, the distance from the contact interface ~~between the test specimen and the structure~~ to the position where the quantitatively increasing or decreasing substance is detected will be measured, after a predetermined period of time has elapsed from the time at which the test specimen first came into contact with the mesh structure in ~~the contacting step (a)~~.

7. (Currently Amended) The quantitative measurement method according to claim 1, wherein ~~in the detection step (b)~~, the concentration distribution of the

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quantitatively increasing or decreasing substance is detected at a distance from the contact interface ~~between the structure and the test specimen~~ by scanning the mesh structure after the contacting step (a).

8. (Currently Amended) The quantitative measurement method according to claim 1, wherein in the detection step (b), the quantitatively increasing or decreasing substance is detected by measuring the light absorbency of the substance which is increasing or decreasing thereof.

9. (Currently Amended) The quantitative measurement method according to claim 1, further comprising a diffusion promoting step which promotes the diffusion of the target substance into the structure by the step of applying a voltage to the target substance having an electrical charge in order to promote the diffusion of the target substance into the mesh structure.

10. (Currently Amended) A quantitative measurement chip comprising:
a reaction cell having a structure which is formed with a material having a three dimensional mesh structure material, the structure containing which contains a reagent that reacts with a target substance in the mesh contained in a test specimen;

a photoemitter and a photoreceptor for measuring, at a contact interface between the test specimen and the reagent, the light absorbance of a substance whose quantity increases or decreases within the reaction cell by means of the reaction between the target substance and the reagent; and

an injection tube for injecting the test specimen containing the target substance into the reaction cell;

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wherein the mesh structure allows at least the target substance to pass therethrough.

11. (Currently Amended) The quantitative measurement chip according to claim 10, wherein the mesh structure ~~has a size which prevents a~~ is sized to prevent components of the test specimen which ~~is~~ are larger than the target substance from passing therethrough.

12. (Original) The quantitative measurement chip according to claim 10, wherein the planar direction of the photoemission surface of the photoemitter and the planar direction of the photoreception surface of the photoreceptor intersect with the planar direction of the contact interface.

13. (Currently Amended) The quantitative measurement chip according to claim 10, wherein the photoemitter and the photoreceptor are respectively formed from a photoemission hole for irradiating light into the mesh structure and a photoreception hole which receives light from the mesh structure.